

APPENDIX 1: DESCRIPTIONS OF RECREATION ACTIVITIES

The department developed the following descriptions of recreation activities to ensure that there is a common understanding about what is meant for the outdoor activities addressed in this analysis and the associated conditions for satisfying experiences, distribution and seasonality.

The information in this summary sheet was developed with input from the Wisconsin ATV/UTV Association and DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: ATV/UTV Riding

Range of desired experiences:

ATV and UTV use occurs in a number of ways on public lands using roads and trails. Roads allowing ATV/UTV use (e.g. routes) can serve as short or long travel routes to access services and connect communities, serve to connect private residences and businesses to trail networks, serve as access routes on public lands for other recreational activities (e.g., hunting, gathering, and sightseeing). Trails specifically designed for ATV/UTV users are generally preferred over road routes. Trail design considers width, trail tread type, challenge areas, mix of terrain, and traveling through scenic areas. Some riders use ATV/UTVs to complement other recreation and gathering activities including hunting access, wild game transport, and firewood gathering. Some riders desire specific areas designed for ATV/UTV use for more challenging opportunities. These can be dedicated lands or areas within a property designed specifically for ATV/UTV users. For multi-day riding in areas with large trail networks, access to services, gas, food, lodging, or camping is important as are safe, appropriately-located parking areas for vehicles and trailers.

Generally, riders prefer narrower, native-material roads and trails versus hard surface or gravel. The trail or road bed has a significant influence on experience and, if poorly designed, can create a negative experience. Participants that travel to a destination prefer over 75 miles of roads and trails and prefer opportunities to connect from trail system to trail system. Long linear roads and trails are desirable to access scenic areas and other natural features away from heavily developed areas and are viewed as a way to get outdoors. There is a slightly higher desire for hilly terrain and scenic rides with views of forests, open natural areas, lakes and streams. Riding long linear rail trails are generally viewed as non-challenging and a means to connect between trail systems and services. Highly disturbed areas can provide challenging riding within a small area.

Notable differences in participation or opportunities across state

The majority of the longer riding opportunities are on public lands with the vast majority in the northern half of the state. There are thousands of miles of trails and routes on county and federal lands, with much less on department lands. The Richard Bong State Recreation Area is an example of the smaller scale, shorter trail opportunities clustered in southeast Wisconsin. There are a number of state trails on old railroad beds that are mixed-use, but that availability varies across the state and depends on allowable uses. Many of these trails provide connections to other trail and road networks.

Notable times of the year of high or low participation

Use is very seasonal in nature occurring mostly between late spring and fall. Many roads and trails are closed in the spring due to soft trail treads during the spring thaw. Winter ATV/UTV is occurring and growing in interest on groomed snowmobile trails. Late summer and fall can be a very enjoyable recreation and tourism period with fall colors and cooler temperatures.

Potential social, economic and ecological considerations for property planning purposes:

ATV/UTVs are not significantly impacted by people in other recreation activities. Roads allow multiple uses including vehicles, horses and street legal motorcycles in which some congestion may occur but it is minimal. There are some challenges with mixing motorcycle and ATV use on designated ATV trails as they are designed for a certain type of vehicle. There can be winter use conflicts between ATV/UTV and snowmobiles for impacts to trail base and jeopardizing private snowmobile trail easements. From a planning perspective, consideration needs to be given to regional trails systems and town road designations as connecting systems for access and services. Trail and road systems should be considered to address users' needs and experiences including remote riding opportunities on closed loop systems and larger more regional road and trail systems.

Potential social, economic, and ecological considerations for property planning purposes:

Negative Impacts

- Conditions around ATV/UTV use areas may be dusty and noisy
- ATV/UTVs can spread invasive species
- Conflict may occur with users desiring a non-motorized recreational experience (e.g., no motor lakes, rustic camping, and wildlife watching)

Positive Impacts:

- ATV/UTV riding is a family activity which encourages people, including those with physical limitations, to get outside and enjoy nature and public lands
- ATV/UTV riding can provide a boost to the local and statewide economy for recreation/tourism services (e.g., lodging, food, and gas).

Participation¹:

Participation rate: 16% of adult Wisconsin residents

Site Selection Considerations and Criteria:

- A minimum of five miles of trails should be provided. Shorter trails providing access to a point of interest are acceptable.
 - Loop trails are typically 8 to 10 miles long or more and can be composed of a series of loops providing a variety of recreational riding experiences that return the participant to the trailhead.
 - Regional trails are point to point trails that can be several hundred miles long and traverse multiple jurisdictions and a combination of land ownership types. Such trail corridors are often shared with other recreational uses.
- Varied terrain is preferable for this recreation experience but steep slopes and unstable soils can affect development and maintenance costs and cause unnecessary resource damage. Avoid areas with slopes exceeding 12%. Avoid areas of sandy soils or peat and organic soils that are saturated for portions of the year. Trail segments with adverse conditions should be kept to a minimum for both long term costs and for environmental reasons.
- A designated trail or route is necessary. A designated ATV/UTV trail may be placed on lands with any DNR land classification but recreational trail setting for ATV trails will always be Type 3 (NR44.06) or Type 4 (NR44.07) Recreational Areas. Note that this use may not occur on land with the classification of Type 3 Non-Motorized Recreation Area (NR44.06(6)(h)) and is not compatible with Recreation Management Areas Type 1 and Type 2.
- Refer to Chapter 30 in the Department Design Standards Handbook (8605.1) and to the Trails Handbook (2540.5) for trail and support facility design guidance and best practices to minimize environment damage.

¹ Data on outdoor recreation participation was recently compiled as part of the department's update to the Wisconsin Statewide Comprehensive Outdoor Recreation Plan (SCORP). For more information, visit the DNR's website and search for "SCORP."

The information in this summary sheet was developed with input from Wisconsin Bike Fed and DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Bicycling - Fat Tire/Snow

Range of desired experiences:

“Fat bikes” typically have a tire width three inches and a max tire pressure of 10 psi (12 psi on groomed trails). These purpose-built “fat bikes” can be used in much the same way as any other bicycle, as well as on sand¹, snow and ice. Riders of fat bikes prefer groomed (packed, untracked) trails and generally seek narrow single-track trails; however, width of grooming equipment and skill of groomer may dictate a need for wider trails. Participants like a mix of terrain (hilly mostly, some flat; mostly wooded) and will travel about an hour for a good experience (twenty plus miles of groomed trail).

Notable differences in participation or opportunities across state

Participation opportunities are highest in northern Wisconsin (e.g. CAMBA trail system has 22 miles of fat bike trails) and near highly populated areas where the volunteer base to support construction and grooming activities exist (as with mountain bike trails, fat bike trails are largely volunteer-driven). There is some crossover with mountain biking, but not all fat bikers are also mountain bikers.

Notable times of the year of high or low participation

Participation in snow biking is weather-dependent; however fat bikes themselves can be used in the same manner as other types of bicycles as well as on sand.

Potential social, economic, and ecological considerations for property planning purposes:

Trails may be winter use (snow covered) only or may be used during non-snow cover conditions for other uses, such as mountain biking. Trailhead shelter facility/warming huts and bathrooms are highly desirable. Consider closing trails when there is less than 4" of snow cover or when trail snow conditions deteriorate to the point where trails are bare and warm (ground is not frozen, tires sink in). Non-fat bike tires (e.g. standard mountain bike tire width) will sink in more easily and may require closing a trail sooner than for fat bike only use (some trails have restrictions on minimum tire width and max tire pressure for this reason).

Potential for trespass by fat bike onto snowmobile trails should be a consideration. Trail intersections must be well marked to indicate legal uses (e.g. where a state trail connects to a local snowmobile trail, snowmobilers may have secured the connecting trails for snowmobile use only).

Participation:

Participation rate: 4% of adult Wisconsin residents

Site Selection Considerations and Criteria:

- A minimum of three miles of trails should be provided at a property. One-half day rides should be at least seven miles in length with 10 miles the minimum length for a full day's ride. Shorter trails providing access to a point of interest are allowed.
 - Loop trails are typically 8 to 10 miles long or more and are composed of a series of loops providing a variety of recreational riding experiences that return the participant to the trailhead.
 - Regional trails are point to point trails that can be several hundred miles long and traverse multiple jurisdictions and a combination of land ownership types. This trail corridor is often shared with other recreational uses.
- Varied terrain is preferable for this recreation experience but steep slopes and unstable soils can affect development costs, maintenance costs and cause unnecessary resource damage. Avoid areas with slopes exceeding 12%. Avoid areas of sandy soils or peat and organic soils that are saturated for portions of the year. Trail segments with adverse conditions should be kept to a minimum for both long term costs and for environmental reasons.

- A designated use trail is necessary for this facility type. A designated fat tire bicycling trail may be placed on lands with any DNR land classification but recreational trail setting for fat tire bicycling trails will always be Type 3 (NR44.06) or Type 4 (NR44.07) Recreational Areas. Note that this use may not be compatible with Recreation Management Areas Type 1 and Type 2.
- Refer to Chapter 30 (page 80) in the Department Design Standards Handbook (8605.1) and to the Trails Handbook (2540.5) for trail and support facility design guidance and best practices to minimize environment damage.

The information in this summary sheet was developed with input from Wisconsin Bike Fed and DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Bicycling - Mountain biking

Range of desired experiences:

Mountain biking is the sport of riding bicycles over varying terrain, using purpose-built bicycles with enhanced durability and performance for rough terrain. Mountain biking can generally be broken down into multiple categories: cross country, trail riding, all mountain, downhill, freeride and dirt jumping. However, the majority of recreational mountain biking in Wisconsin falls into the category of the cross-country riding style, on purpose-built narrow trails (single-track, less than 2 feet wide).

Notable differences in participation or opportunities across state

Participation rates are higher in more populated areas; however most participants travel some or all the time to access trails. Constructed mountain bike trails meet layout and design specifications that require they be built by hand or with specialized equipment and require a close relationship between the land manager and the volunteer groups who build them, or specialized contractors to construct the trails. Thus, availability of trails specifically constructed for mountain biking is limited. However, there are more than 20 chapters of mountain bike-focused volunteer groups across the state, most of whom engage in trail building on public lands to create their desired riding experiences.

Notable times of the year of high or low participation

Mountain bikers (and all trail users) are generally discouraged from using trails during spring thaw, especially in areas with poorly drained soils. More than perhaps any other user group, peer pressure and advocacy organization education encourages responsible use of trails (e.g. not during times when tires will leave ruts). Late spring and summer are high participation, also fewer bugs and lower temperatures in the fall mean typically higher participation level at that time of year. Winter mountain biking is covered under the summary sheet for fat tire/snow bicycling.

Potential social, economic, and ecological considerations for property planning purposes:

The speed of mountain bicycles can be a source of conflict with slower recreationalists (e.g. hikers); the lack of sound from mountain bicycles can be a source of conflict with horses, which can be spooked by silent, quickly moving bicycles. Poorly designed or constructed mountain bike trails can lead to greater environmental impacts, including soil displacement and erosion. To ensure successful implementation of mountain bicycling at a property, the trail must be designed for the use from the beginning.

Participation:

Participation rate: 11% of adult Wisconsin residents

Site Selection Considerations and Criteria:

- Mountain biking is permitted only on trails designated for bicycling.
- NR44 addresses appropriate designated trail types for the various land classifications.
- Refer to the Department Design Standards Handbook (8605.1, Chapter 30) and the Trails Handbook (2540.5) for further design guidelines.

The information in this summary sheet was developed with input from Wisconsin Bike Fed and DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Bicycling - Off-road biking

Range of desired experiences:

Off-road bicycling includes mountain biking, but also a variety of bicycling experiences on trails other than constructed single-track. Takes place on intermediate-level trails, often in the woods with a variety of surfacing, from native soil to wood chips. Appropriate for families with more adventurous riders and hybrid or mountain bikes. Off-road bicycling can be located on logging roads and usually is most attractive to casual riders.

Notable differences in participation or opportunities across state

Fairly consistent across the state, however bicyclists on the far ends of the age spectrum (old and young) will tend to participate in this type of bicycling more than other types.

Notable times of the year of high or low participation

Level of use is generally consistent with property visitation rates. Day users and in particular campers at a property are most likely to participate.

Potential social, economic, and ecological considerations for property planning purposes:

These experiences should not be located in inaccessible places due to their frequent use by inexperienced or unskilled riders and the need (expectation) for extraction after accidents or crashes. Wayfinding and current maps are extremely important, as are good sight lines and minimal grade (steepness). Not always constructed for this purpose (bicycling), trails can wash out and become maintenance issues (highly unlikely with constructed single-track).

Participation²:

Participation rate: 34% of adult Wisconsin residents

Site Selection Considerations and Criteria:

- Bicycling is permitted only on trails designated for that specific use and on DNR roads open to the public on department properties other than Northern State Forests.
- NR44 addresses appropriate designated trail types for the various land classifications.
- Refer to the Department Design Standards Handbook (8605.1, Chapter 30) and the Trails Handbook (2540.5) for further design guidelines.

² Data on outdoor recreation participation was recently compiled as part of the department's update to the Wisconsin Statewide Comprehensive Outdoor Recreation Plan (SCORP). For more information, visit the DNR's website and search for "SCORP."

The information in this summary sheet was developed with input from the Nonmotorized Recreation and Transportation Trails Council and DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Bicycling - Road Bicycling/Rail-trail Bicycling/Bicycle Touring

Range of desired experiences:

Road bicycling, rail-trail bicycling and bicycle touring occur mostly on paved rural roads and paved or crushed stone-surfaced paths/trail systems across the state, including on the nearly 1,000 miles of rail trails (trails along former railroad corridors) in Wisconsin. This experience is generally appropriate for all ability levels and bikes with skinny tires. Participants often choose routes based on available amenities such as campgrounds, parks, interesting sites, and food/beverage availability. There is some cross-over with people using these same facilities for transportation (non-recreation) purposes. Length of trip can range from a few hours to a few weeks.

Notable differences in participation or opportunities across state

Availability of bicycle facility infrastructure (“bikeways”) varies across the state, with stronger infrastructure investment generally located closer to urban areas. However, rural areas often have the advantage of lower volume of road traffic. Rail trails in the northern part of the state tend to allow and attract higher levels of motorized traffic and demand as well as actual use of those facilities tends to be lower by bicyclists.

Notable times of the year of high or low participation

Summer and fall are generally higher participation due to favorable weather, although late spring, depending on trail conditions for non-paved facilities, can also be popular, particularly for those experienced riders seeking intense physical activity. Winter participation will depend largely on the maintenance (snow removal) of facilities; but regardless will be low compared to other times of the year.

Potential social, economic, and ecological considerations for property planning purposes:

This is a high physical activity for participants, who are exposed to multiple eco-regions of the state. This activity generally takes place in out of the way locations and typically is not impacted by people involved in other types of outdoor recreation. Participants look for amenities such as drinking water and camping. Trails will generally be expected to be constructed to federal transportation-facility standards (minimum 10’ width), particularly in more urban areas. Motorists who are not used to sharing facilities (roads, rail trails) with bicyclists can feel impacted by the presence of bicyclists. Appropriate bicycle accommodations on roads can increase road project costs as well as the footprint (size) of the road.

Studies have shown that increasing nonresident bicycling in Wisconsin by 20 percent has the potential to increase economic activity by more than \$107 million dollars and create 1,528 full-time-equivalent jobs, mostly in retail, lodging and food service (<http://wisconsin.gov/Documents/travel/bike/econ-impact.pdf>).

Due to the lack of topography and way in which railroads are initially constructed, maintenance costs for rail trails can be high after catastrophic weather events.

Participation:

Participation rate: 48% of adult Wisconsin residents

Site Selection Considerations and Criteria:

- These types of biking occur on public roads managed by the DNR, towns, counties and the state and on railroad grades that have been converted into trails.
- Guidance for accommodating bicycle traffic on a variety of road types, including rural roads can be found in AASHTO’s Guide for the Development of Bicycle Facilities, 4th Edition.
- Refer to the Department Design Standards Handbook (8605.1, Chapter 30) and the Trails Handbook (2540.5) for further design guidelines.

The information in this summary sheet was developed with input from the Wisconsin Society for Ornithology and DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Bird watching

Range of desired experiences:

Bird watching is often characterized as either occurring around the home or away from home; of course, birders often participate in both types. Birding around the home is the second most frequently engaged in outdoor recreation activity by Wisconsin residents.

Enthusiast: Birding enthusiasts typically watch and track birds throughout the year, feed and watch birds at their residences, and take trips throughout the state or country specifically to view birds or add to their “life list.” Although enthusiasts often participate in other silent sports, birding is usually the primary purpose of their outings. High-quality experiences are characterized by uncrowded, quiet conditions where these birders can slowly move through an area with minimal disturbance to wildlife, other birders, and other recreationalists.

Frequent participant: Frequent participants of birding enjoy visiting a variety of places and habitats and typically engage in a variety of other outdoor activities as part of their birding (e.g., nature photography, gathering berries, mushrooms and nuts, hiking, bicycling, and canoeing).

Occasional participant: Occasional participants of birding typically watch birds as a secondary activity to an outing focused on another outdoor pursuit.

Notable differences in participation or opportunities across state

With the Great Lake shorelines and the Mississippi River valley as natural migration corridors, Wisconsin hosts an abundance of high-quality birding opportunities. Although opportunities exist throughout the state, the type varies from remote, high-quality ecological sites to more disturbed sites in agricultural settings and even large metropolitan areas. Simply due to the number of people living in urban centers, most birding takes place in the southern and eastern parts of the state; however, the participation rate of residents is highest in the northern and western portion.

Notable times of the year of high or low participation

Birding occurs throughout the year. Peaks in participation away from the home occur during the spring and fall migration periods. Birding around the home, particularly associated with bird feeding, is popular with many people during the winter.

Potential social, economic, and ecological considerations for property planning purposes:

Birders, especially enthusiasts, can be impacted by people participating in activities that scare birds away from an area, even if only temporarily. As a consequence, birders typically report conflicts with motorized or louder activities occurring nearby.

Apart from possibly walking in sensitive areas, birders create few impacts on the environment. Birders typically have very few impacts on people participating in other activities. However, in some cases birders can conflict with each other, particularly when one or more birders over-zealously pursue birds in ways that cause them to fly away.

Participation:

Birding at home

Participation rate: 55% of adult Wisconsin residents

Birding away from home

Participation rate: 39% of adult Wisconsin residents

Site Selection Considerations and Criteria:

- Focus birding-specific facilities such as overlooks and observation trails on properties within or near the migratory flyways such as the Great Lakes, the Mississippi River, the Wisconsin River, Horicon Marsh, Crex Meadows, etc.

The information in this summary sheet was developed by DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Camping – Developed (Modern) Campground

Range of desired experiences:

Campers of this type are seeking an experience near nature but still desire the comforts of home. Modern campgrounds are typically located near developed intensive recreational use areas or sites that offer a variety of recreational experiences close at hand. Campers expect to encounter others in the campground and in fact, often choose the campground with the expectation of enjoying the social interactions that accompany this camping experience.

Modern campground campsites feature picnic tables, fire rings, flush toilets, and sites can have electrical, water and sewage hook-ups. Bathhouses with hot showers can also be part of this experience from both public and private providers. Developed campgrounds can accommodate all type of camping units ranging from Class A motorhomes to tents. Private campgrounds may also include food and beverage services, swimming pools and other amenities associated with lodging establishments.

Notable differences in participation or opportunities across state:

The experience offered by modern campgrounds is available in all parts of the state and provided by both public and private entities.

Notable times of the year of high or low participation:

Highest use months are May through October.

Potential social, economic and ecological considerations for property planning purposes:

On department lands, modern campgrounds are associated mainly with state parks and southern /northern state forests. These campgrounds are associated with the intensive recreational use setting sub-classifications as defined in Wisconsin Administrative Rule NR 44. This administrative rule also defines camping facility development and design standards.

Campground and campsite development can cause environmental or social disturbances. Care must be taken when selecting proper locations and social impacts should be considered so as to not overwhelm a property or impact adjacent land uses.

Within the state park system, camping often complements other local and regional lodging options. Taken together, state park overnight visitors generate approximately \$192,000,000 in yearly statewide economic impacts.

Participation:

Participation rate: 21% of adult Wisconsin residents

Site Selection Considerations and Criteria:

- A minimum of 40 acre of land suitable for development (in terms of soils and slope) is needed for a 100-site campground and its support facilities. Modern campgrounds generally have 100 plus campsites with a separation distance of approximately 100 feet between sites.
- The department must work within the statutory limit regarding the number of electric campsites. The limit is currently 30% of the total number of campsites offered by the Wisconsin state parks system.
- Development of this type of facility is limited to the NR 44 Type 4 Recreation Setting classification and are considered “Modern Campgrounds” (NR44.07 (7)5.b).
- Refer to Chapter 40 in the Department Design Standards Handbook (8605.1) for guidance on location and design for this facility type.

The information in this summary sheet was developed by DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Camping – Rustic Campground

Range of desired experiences:

Campers of this type are seeking an experience closer to nature and are less concerned with the comforts of home than campers at a modern campground. Differing from modern campgrounds, these sometimes are not located near developed intensive recreational use areas. Campsite access is usually via a vehicle, but can sometimes be by a short walk from a shared parking area to a “walk-in” site.

Campers expect to encounter others in the campground but less so than in modern campgrounds, a greater sense of privacy from others is often the camper’s goal. Rustic campgrounds typically are smaller with fewer campsites and greater separation distance between campsites than modern campgrounds. The overall level of development is lower. Rustic campsites feature picnic tables, fire ring, and vault or flush toilets, but do not have electrical, water and sewage hook-ups. Toilet facilities are typically vault toilets but they may be pressurized water and flush toilets. Drinking water is provided at a central location from which campers haul it to their sites in water containers. Rustic campgrounds can accommodate various camping unit types from small RVs, large trailers to tents, but typically do not accommodate large camper units as well as modern campgrounds.

Notable differences in participation or opportunities across state

Rustic camping is available in all parts of the state and is the most common type of camping the department provides.

Notable times of the year of high or low participation

Highest use months are May through October.

Potential social, economic, and ecological considerations for property planning purposes:

On department lands, rustic camping is associated mainly with state parks and southern / northern forests. These campgrounds are associated with the intensive recreational use setting sub-classifications as defined in Wisconsin Administrative Rule NR 44. This administrative rule also defines camping facility development and design standards.

Campground and campsite development can cause environmental disturbances. Care must be taken to select proper locations and social impacts should be considered so as to not overwhelm a property.

Within the state park system, camping often complements other local and regional lodging options. Taken together, state park overnight visitors generate approximately \$192,000,000 in yearly statewide economic impacts.

Participation:

Participation rate: 32% of adult Wisconsin residents

Site Selection Considerations and Criteria:

- A minimum of 40 acre of land suitable for development (in terms of soils and slope) is needed for a 75-site campground and its support facilities. Rustic campgrounds generally are to be limited to a maximum of 75 campsites with a separation distance of 100 to 200 feet between sites.
- Development of this type of facility is limited to the Type-4 Recreation Setting sub-classification and are considered “Rustic Campgrounds” (NR44.07 (7)4.b).
- Refer to Chapter 40 in the Department Design Standards Handbook (8605.1) for campground site selection criteria.

The information in this summary sheet was developed by DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary Sheet: Camping - Primitive Site

Range of desired experiences:

Campers of this type are seeking to experience nature in a remote setting offering opportunities for solitude and primitive self-reliant camping. The campsites are not part of a conventional campground but rather are dispersed single sites or a remote, small cluster of widely spaced sites. Clustered sites are called semi-primitive camping. Access mode is determined by the master plan and is usually via boating or paddling, backpacking or biking, but sometimes semi-primitive sites may be accessed by motor vehicle.

Campers expect little sight and sound contact with other recreational users. Campsites are minimally developed with a tent pad of native material, a fire ring, and perhaps a picnic table. Toilet facilities are typically box latrines, and water is not provided. Site occupancy is on a first come first served basis.

Dispersed Camping and other Special Purpose Camping

The vast majority of camping on department property occurs at designated, permanent campgrounds or campsites with at least some support facilities provided. Camping at sites with no facilities is also allowed from time to time (with a permit) on some properties. This type of unsupported camping is called “dispersed camping” because it occurs at variable “dispersed locations” on a property for a limited time period. Examples are hunting camps and backpack camping, most commonly occurring on state forests and along the Ice Age Trail. Special purpose camping permits are also issued for dog trials and other special events.

Notable differences in participation or opportunities across state:

Primitive and semi-primitive camping is available in all parts of the state but primarily in the north, being most common in the northern state forests, the northern flowage properties, and a few state parks and recreation areas.

Notable times of the year of high or low participation:

Highest use months are May through October.

Potential social, economic, and ecological considerations for property planning purposes:

These campsites are typically associated with the non-intensive use land management recreational sub-classifications of Wisconsin Administrative Rule NR 44. This administrative rule also defines camping facility development and design standards.

Because primitive campers seeking to experience nature and solitude care must be taken to select sites that meet the siting and campsite design criteria defined in NR 44.

Participation:

Participation rate: SCORP data is not available for this activity

Site Selection Considerations and Criteria:

While primitive camping is defined within the recreational sub-classification section of NR 44, it is not limited only to areas with the recreational use classification. A master plan may provide for this style of camping under most land use classes, if it is compatible with the management objectives for the area and the primitive campsite siting and design criteria can be met. [Note: while primitive campsites may be developed in association with developed campgrounds, such as “walk-in campsites”, providing a popular and valuable camping opportunity they do not provide a fully remote camping experience.]

Development and siting criteria for primitive campsites are detailed in (NR44.07 (4) and (NR44.07 (5)). Semi-primitive camping is detailed in (NR44.07 (6)).

The information in this summary sheet was developed by DNR staff. This information will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Canoeing and Kayaking

Range of desired experiences:

Canoeing and kayaking provide a wide range of experiences from flat water (lakes), to moving water (streams and rivers) to whitewater (streams and rivers with sufficient fall to create rapids and water falls). In addition, this activity can take place for a few hours during the day at a local lake or it can be a means of transportation on a tour of a river or a flowage over the course of several days. Canoes and kayaks are also used for fishing, bird watching and collecting wild edibles.

The experience level of the recreationalist varies greatly as well, with many outlets renting canoes and kayaks, the boater can be a first timer or just an occasional participant. Enthusiasts usually own their own boats, sometimes more than one, and will travel great distances to experience a certain body of water.

This type of boating requires little in the way of infrastructure in terms of launching the boats, a clearing on a shore line with minimal drop to the water level is sufficient. A safe parking area is necessary; toilets and drinking water are appreciated.

Notable differences in participation or opportunities across state

Participation occurs all over the state, although the lack of lakes and larger rivers in the Driftless area limits participation in this area.

Notable times of the year of high or low participation

Late spring, summer and early fall are the most popular times of the year for this activity, with summer being the peak period. Late fall and early spring are less popular due to colder air and water temperatures, although hearty participants can be found out on the water as long as it is not frozen.

Potential social, economic, and ecological considerations for property planning purposes:

Canoeist and kayakers who use motorized boat accesses can experience resentment by the motor boaters who feel they paid for the facilities via their boat licenses and the non-motorized boaters should launch elsewhere.

Maintaining and advertising carry-in sites on popular water ways might diminish this conflict by separating the uses. The wake from motorized boating as well as the noise can prove to be an irritant to canoeists and kayakers. However, with 15,000 lakes, 43,000 miles of rivers and 670 miles of Great Lake shoreline, there is no shortage of water bodies in Wisconsin for everyone to enjoy.

Unwise placement of carry-in launches, such as on steep banks or unstable soil, can cause unnecessary erosion of the streambank or lake shore.

Participation:

Participation rate: 34% of adult Wisconsin residents

Site Selection Considerations and Criteria:

- Refer to the Department Design Standards Handbook, Chapter 80 (Recreational and Boating Facilities) and 90 (Roads and Parking) for related design standards.
- Although not officially adopted, the Canoe Campsites and Routes Handbook (2512) provides guidance on providing canoe trails.

The information in this summary sheet was developed with input from Wisconsin Nordic Network and DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Cross-country Skiing (Nordic skiing)

Range of desired experiences:

Participants propel themselves across snow-covered terrain by either striding forward (classic style) or side-to-side in a skating motion (skate skiing). On department lands, cross-country skiing is listed as one of the five Nature Based Outdoor Activities. Skiers are generally treated as pedestrians, meaning they are allowed to traverse anywhere on department lands not posted closed to the public. In addition, other trail uses are not allowed on trails designated as and groomed for cross-country skiing. Skier's experience is enhanced when the trails are located on a mix of hilly and flat topography; and debris from surrounding vegetation, rocks and roots is kept to a minimum. Groomed trails enhance the experience but are not necessary for the sport.

Notable differences in participation or opportunities across state

Participation is weather-dependent. Participants often travel to better snow conditions and more extensive trail systems, particularly from southern to northern Wisconsin. Some participants enter races such as the American Birkebeiner, which necessitate regular training close to home for entrants. Wisconsin has more than 700 groomed cross-country ski trails.

Notable times of the year of high or low participation

This activity is entirely dependent on weather and snowfall. There are a few locations in the state where snowmaking equipment is used to enhance or create suitable conditions for groomed cross-country ski trails.

Potential social, economic, and ecological considerations for property planning purposes:

Trails may be winter use (snow covered) only or may be used during non-snow cover conditions for other uses. Trailhead shelter facility/warming huts are common. Lighted trails are growing in popularity as are candlelight ski events. This is a highly aerobic activity. Skiers will often complain about exhaust from any nearby combustion engines. Trails should be constructed a minimum of 4' wide with an additional 2' shoulders on either side. Grooming equipment width, height, turning radius, and weight should all be used to determine trail width, layout and bridge design. Additionally, the type(s) of cross-country skiing that will be accommodated will help determine trail width; skate skiing requires a wider trail corridor. Although groomed trails are not required for every type of cross-country skiing, grooming is often the expected experience when it is noted that a property provides cross-country ski trails. Grooming and track setting for classic style requires specialized equipment and techniques. Trail preparation employs snow machines that tow snow compaction, texturing and track-setting devices. Groomers must adapt such equipment to the condition of the snow—crystal structure, temperature, degree of compaction, moisture content. Skilled grooming is a key to providing quality cross-country ski trails. Grooming costs should be considered in decision making.

Participation:

Participation rate: 13% of adult Wisconsin residents

Site Selection Considerations and Criteria:

- Cross country skiing is permitted on any DNR land opened to public use, the guidance provided below relates to designated cross-country ski trails only.
- To accommodate low volume cross-country skiing a minimum of 4 miles of looped trails with a 1.5 to 2-mile beginner loop is necessary. Five parking stalls per mile of trail is standard.
- To accommodate high volume cross-country skiing a minimum of 6 miles of looped trails with a 2-mile or less beginner trail is necessary. A shelter, drinking water and some sort of toilet facility should be considered. Eight parking stalls per mile of trail is standard.
- NR44 addresses appropriate designated trail types for the various land classifications.

- Refer to the Department Design Standards Handbook (8605.1, Chapter 30) and the Trails Handbook (2540.5) for further design guidelines.

The information in this summary sheet was developed by DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Dog Sledding and Skijoring

Range of desired experiences:

Dog sledding and skijoring are snow-based recreational activities where dogs are placed in harnesses and used to help pull humans along maintained trails and/or unmaintained land. In dog sledding the dogs are usually in teams of 2 or more and pull a sled and human driver. In skijoring, generally one or two dogs are harnessed to a human cross-country skier. While most activity takes place during the winter, variations of dog sledding and skijoring also occur in the absence of snow by using wheeled carts and bikes. Preferred settings contain both trails and off-trail areas where pets are allowed. A high-quality opportunity would include: at least 40 acres of habitat (no habitat preference) with varied topography (some hills and some flat) having at least 10 miles of trails (at least 4'-wide trail, 4-8' cleared corridor, native surface). Between 10 and 50% of participation takes place an hour or more away from participants' homes, so there is some willingness to travel.

Notable differences in participation or opportunities across state

Participation is highest in the northern third of the state, and low elsewhere.

Notable times of the year of high or low participation

Participation is highest in winter and low at other times of the year.

Potential social, economic, and ecological considerations for property planning purposes:

Participants' main concern is motorized vehicles, due to danger to both pets and humans. Impacts to other participants, other property users, or neighboring landowners include pet waste, noise from barking, and trail conflicts with snowshoers and skiers. Environmental impacts are minor and similar to cross-country skiing.

Benefits include exercise/health benefits for both dogs and owners and the opportunity for dog owners to enjoy their pet in a natural setting. There can also be some local positive economic impact associated with large events/races.

Participation:

Participation rate: No data provided in SCORP

Site Selection Considerations and Criteria:

- Skijoring and dog sledding is permitted on any DNR land opened to public use, the guidance provided below relates to designated cross-country ski trails but could be applied to the above activities.
- A cross-country ski trail can be used for skijoring but the trail should be considered set aside for the use as the dogs tend to ruin the ski track.
- NR44 addresses appropriate designated trail types for the various land classifications.
- Refer to the Department Design Standards Handbook (8605.1, Chapter 30) and the Trails Handbook (2540.5) for further design guidelines.

The information in this summary sheet was developed with input from Wisconsin Association of Field Trial Clubs and DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Dog Training & Field Trialing (Pointing, flushing, & retrieving)

Range of desired experiences:

This activity involves training dogs to perform various hunting-related tasks (e.g., pointing, flushing, retrieving) and then applying the training in competitions or during hunting. Riders on horseback are used for pointing-dog events. Judges and participants on horseback follow the dogs and are able to identify “points”; this is what the dogs are judged on. Preferred settings are large areas (~1,000 acres) away from population centers with grassland, savanna, or wetland habitats and mostly flat terrain. Ideally, the facility will provide trails (4-8’ cleared corridor, native surface), a mowed grassy area, drinking water and toilets (portable is fine), and a shelter with walls and a roof for bad weather. Over half of all participation takes place an hour or more away from participants’ homes, so participants are willing to travel for a quality experience.

Notable differences in participation or opportunities across state

Participation is highest in the northwest (probably because of proximity to the Twin Cities) and south-central and southeast parts of the state (most of the Class I grounds are located here), moderate in the central, north-central, and western parts of the state, and lowest in the northeast.

Notable times of the year of high or low participation

Participation is highest in spring and fall and moderate in summer and winter. It is not desirable to run dogs or horses during the heat of summer or cold of winter. Also, it would be much harder to get around the state lands in the winter (many participants have large trailers for dogs and horses). Finally, many property managers limit the time of year that dog events can happen on a property due to nesting birds or other environmental concerns.

Potential social, economic, and ecological considerations for property planning purposes:

Participants’ main complaint seems to be “people in places they shouldn’t be”; i.e., lack of awareness on the part of other property users that there is a dog training area and being present and/or interfering with a training or trialing event. They would also like to have more Class I grounds. The main impact to other property users is that dog trainers/trialers hope or expect that other users will not use the area while a training or trialing event is in progress, essentially making the area off-limits to other users. Other impacts to users or to neighboring landowners include noise from dogs barking late at night or early in the morning and the report from a blank pistol or shotgun. There may also be perceived safety concerns if people nearby are unaware of training/trialing events and don’t know that blanks are being fired instead of live ammunition. Large trucks and trailers used to transport dogs and horses could impact roads and traffic in the area. On the plus side, participants feel that their activity provides well-trained dogs that can be sold to the hunting public and/or that their expertise can help the hunting public train their dogs to be effective and efficient in retrieving downed game. Also, they volunteer to maintain dog training/trialing grounds through mowing and burning, which also helps provide/maintain habitat for other species.

Environmental impacts: Horses may trample soil and vegetation, particularly in wet conditions. Biologists and property managers put restrictions on the clubs for mowing and other maintenance (brushing, herbicide application, etc.) to lessen negative impact on wildlife and plants. Trials do take place during the bird nesting season. This is where the importance of the relationship between the property manager and the club is vital. They work together on where the dogs can go and when.

Participation:

Participation rate: SCORP data is not available for this activity

Site Selection Considerations and Criteria:

- Preferred settings are large areas (~1,000 acres) away from population centers with grassland, savanna, or wetland habitats and mostly flat terrain.

See also:

- s. 169.20-21, Wis. Stats.
- ch. NR 17, Wis. Adm. Code
- Manual Code 9438.1
- Wisconsin Dog Training and Trialing Regulations
- PUB-WM-444-2007

The information in this summary sheet was developed by DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary Sheet: Dog Walking

Range of desired experiences:

This activity is a form of recreation and exercise for both the dog owner and the pet, and can occur with the dog on or off a leash. Most dog-walking occurs for 0.5-2 hours at a time. Preferred settings include walking/hiking trails where dogs are allowed as well as fenced “dog parks” where dogs can be off-leash. A high-quality opportunity would include: at least four miles of trails (2-4’-wide, less than 4’ cleared corridor, native surface) in grassland, savanna, or forest habitat with varied terrain (some hills and some flat) and a fenced area of at least three acres with a mowed grassy area and drinking water. Ponds or lakes are also desirable for pet swimming and water retrieving. Over 90% of participation takes place an hour or less from participants’ homes, so locations near population centers are best.

Notable differences in participation or opportunities across state

Demand is generally highest near more heavily populated areas (south-central WI, Fox Valley, Green Bay) and moderate elsewhere in the state.

Notable times of the year of high or low participation

Participation is highest in spring and summer, moderate in fall, and low in winter.

Potential social, economic, and ecological considerations for property planning purposes:

Participants’ main concern is motorized vehicles, due to danger to the pet. Impacts to other participants, other property users, or neighboring landowners include pet waste, noise from barking, and poorly-behaved or aggressive dogs. Dogs can also present a safety hazard for bikers. Environmental impacts are minor and similar to hiking (soil erosion or compaction, minor trampling of vegetation).

Benefits include exercise/health benefits for both dogs and owners and the opportunity for dog owners to enjoy their pet in a natural setting.

Participation:

Participation rate: 32% of adult Wisconsin residents

Site Selection Considerations and Criteria:

Site considerations and criteria do not apply to this activity.

The information in this summary sheet was developed with input from DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs, and issues.

Summary sheet: Fishing – Ice

Range of desired experiences:

Surprisingly, winter fishing makes up nearly one fourth of the annual catch in Wisconsin. People enjoy it for the solitude of being out on a frozen lake and the challenge of the sport. Others like the friendship and fond memories found with friends and family. Ice fishing is generally restricted to inland lakes, flowages of large rivers like the Wisconsin, Chippewa, Rock, and Flambeau, and portions of the Great Lakes (primarily harbors, Green Bay, and Lake Superior).

Notable differences in participation or opportunities across state

Ice fishing is most prevalent in the north where natural lakes are common, as well as on flowages of large rivers. The ice fishing season tends to be shorter in the south due warmer temperatures in late winter. Ice depths are also less dependable further south in the state. Besides some of the flowages, there are fewer lakes in the western and central part of the state and subsequently far fewer opportunities.

Notable times of the year of high or low participation

Mid to late December is typically when sufficient ice is available in northern Wisconsin. Early ice tends to produce more success. Depending upon the year in the southern part of the state, sufficient ice doesn't develop until January. Typically, by the end of March, much of the ice melts and gives way to open water.

Potential social, economic, and ecological considerations for property planning purposes:

Ice angling in general is a more social activity than open water angling, since ice anglers tolerate greater densities on the ice. That being said, excessive truck, ATV, and snowmobile traffic tend to disturb fish and fishing. Ice fishing requires ice. Warm weather and unsafe ice conditions can threaten the quality of the experience. Boat launch facilities can be crowded on popular ice angling lakes, however, other activities at the launch are generally at a low-point so the space conflicts at the launch is among ice anglers, not with other recreational activities.

Overall, there exist very limited impacts to the environment. Trash may be left on the ice, but anglers often police themselves. Exploitation of fish populations are closely monitored and regulated by the Department of Natural Resources through length and bag limits for each game fish species.

Economically, ice fishing may have significant impacts. For example, the Lake Sturgeon spearing season brings more than \$3 million to the Lake Winnebago region as it is home to the world's largest sturgeon population.

Participation:

Participation rate: 23% of adult Wisconsin residents

Site Selection Considerations and Criteria:

- Refer to the Department Design Standards Handbook, Chapter 80 (Recreational and Boating Facilities) and 90 (Roads and Parking) for related design standards.
- NR1.91.

The information in this summary sheet was developed with input from DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs, and issues.

Summary sheet: Fishing – Lake, from boat

Range of desired experiences:

Wisconsin has over 15,000 lakes, providing breathtaking scenery and beautiful wildlife along thousands of miles of shoreline, where Wisconsin residents and visitors can fish from a boat, canoe or kayak. Lake angling from a boat is very diverse, encompassing kayak angling, row trolling, pontoon angling, competitive angling in tournaments, and bow fishing. Lake angling from a boat typically involves the same departure and return locations, whether it be a private pier or a public launch facility. Most are day-trips and do not involve overnight camping or other associated activities.

Public access standards are described in NR 1.91; It is the goal of the state of Wisconsin to provide, maintain and improve access to the state's navigable lakes, rivers and streams for the public. Public access facilities shall allow for public rights of navigation, related incidental uses and other uses which are appropriate for the waterway.

Waterway uses shall be equally available to all waterway users and include enjoyment of natural scenic beauty and serenity. These public rights and uses may be provided by any combination of publicly and privately-owned access facilities which are available to the general public free or for a reasonable fee.

Notable differences in participation or opportunities across state

Lake fishing from watercraft is most prevalent in the north and along Lake Superior and Lake Michigan. Since there are few lakes in the western and central part of the state, there are far less opportunities for lake fishing from watercraft.

Notable times of the year of high or low participation

Spring and summer are typically when lake fishing is popular and effective. The statewide fishing opener is the first weekend in May. Late spring to early summer tends to be a peak period for fishing activity. There is little to no lake fishing by boat in the winter.

Potential social, economic, and ecological considerations for property planning purposes:

Lake fishing from a boat has a number of both positive and negative effects. It provides anglers with sustenance and food, exercise, and connection with family, friends, and the natural aquatic environment. This escape from urban environments allows visitors to physically and mentally recharge.

At the same time, the popularity of lake fishing from a boat may result in extensive riparian development on non-urban lakes, poor water quality, and habitat loss. Night bow fishing results in light and noise disturbances, and motorized boats can disturb non-motorized boaters while moving between fishing locations. Furthermore, due to the frequency of visitation and traveling of visitors, there is an increased likelihood of the introduction of aquatic invasive species and potential for trash left at public launches.

Participation:

Rank of participation rate: 37% of adult Wisconsin residents

Site Selection Considerations and Criteria:

- Refer to the Department Design Standards Handbook, Chapter 80 (Recreational and Boating Facilities) and 90 (Roads and Parking) for related design standards.
- NR1.91.

The information in this summary sheet was developed with input from DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs, and issues.

Summary sheet: Fishing – stream or river, from boat

Range of desired experiences:

Wisconsin has more than 12,600 rivers and streams that meander their way through 84,000 miles of varying terrain. The state also has nearly 1,600 stream and river miles designated as "outstanding" and recognized as the state's highest quality water resources. The Mississippi River winds its way through about 200 miles of Wisconsin. Other rivers, like the Wisconsin, Flambeau, St. Croix, Namekagon, Chippewa, Fox, Milwaukee, Wolf, Rock, Baraboo, Black, Menominee, and the Pecatonica join the Mississippi River to provide the majority of river float fishing opportunities.

Non-motorized watercraft river fishing most often involves launching and fishing while floating downstream to a defined take-out landing. Non-motorized landings can be quite primitive. Carry-in locations can sometimes be associated with road crossings at streams.

Motorized water river fishing generally occurs in the largest portions of the rivers without significant rapids, and anglers tend to motor back to the same landing rather than take-out downstream. Motorized river fishing ranges from very small watercraft to houseboats on the Mississippi River. River float fishing anglers are typically seeking catfish, sturgeon, walleye, smallmouth bass, and muskellunge. Bowfishing is another recreational activity that occurs on large rivers and their backwaters as anglers most commonly seek buffalo and carp.

Notable differences in participation or opportunities across state

River fishing from watercraft is most prevalent along the Mississippi River as well as the larger rivers in the northwest and southcentral part of the state. Along Lake Michigan and in the northeast areas where the dominant water features are lakes, there is much less opportunity for river fishing by boat.

Notable times of the year of high or low participation

Spring and summer are typically when stream fishing is popular and effective. The statewide fishing opener is the first weekend in May. Late spring to early summer tends to be a peak period for fishing activity. There is little to no river fishing by boat in the winter.

Potential social, economic, and ecological considerations for property planning purposes:

River fishing from a boat has a number of both positive and negative effects. It provides anglers with sustenance and food, exercise, and connection with family, friends, and the natural aquatic environment. This escape from urban environments allows visitors to physically and mentally recharge.

Anglers on non-motorized watercrafts are impacted by jet skis and other motorized water craft. On small rivers, high densities of canoe and kayak paddlers can also detract from river float experiences. Those anglers with motorized watercrafts are negatively impacted by powerboating activities such as water-skiing, wake boarding, and riding personal watercrafts, as these activities can displace fish and impact angling success. Night bow fishing results in light and noise disturbances. Ecologically, banks are susceptible to erosion from the use of carry-in launches and wakes caused by motorized boats.

Participation:

Rank of participation rate: 20% of adult Wisconsin residents

Site Selection Considerations and Criteria:

- Refer to the Department Design Standards Handbook, Chapter 80 (Recreational and Boating Facilities) and 90 (Roads and Parking) for related design standards.
- NR1.91.

The information in this summary sheet was developed with input from DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs, and issues.

Summary sheet: Fishing – stream or river, from shore

Range of desired experiences:

Stream fishing from shore includes trout and smallmouth bass angling in wadeable streams, river bank and bridge-deck fishing in rural areas on larger rivers, and river bank and wharf fishing in urban areas. Wisconsin boasts over 13,000 miles of trout streams with over 5,000 classified as high quality, class I trout streams. Anglers employ different strategies from fly-casting to spinning rod with lures and straight hooks with bait. Public access to waterways is gained through the purchase of riparian rights or by wading in navigable waters.

At rural public fishing lands, parking lots or parking pads near bridges are useful to improve public access. Walking paths may also be helpful. There may be instances where accessible fishing areas can be cleared to provide fishing access to those with disabilities.

In urban settings on larger rivers, there are often community parks that have fishing piers and wharfs as well as toilet and water facilities. These facilities help to focus user traffic and minimize the amount of shoreline damage.

Notable differences in participation or opportunities across state

Stream fishing is most prevalent in the western Driftless Area of the state where the primary water features are small streams that empty into larger rivers. Stream fishing is also popular in central and southern regions of the state. In the northern areas where the dominant water features are lakes, there is less opportunity for stream fishing.

Notable times of the year of high or low participation

Spring and summer are typically when stream fishing is popular and effective. Trout angling season begins with a catch-and-release season in late winter or early spring. The statewide fishing opener is the first weekend in May. Late spring to early summer tends to be a peak period for fishing activity. As temperatures cool in the fall, fishing activity decreases. There is little to no stream fishing in the winter.

Potential social, economic, and ecological considerations for property planning purposes:

Quality trout and smallmouth bass angling is primarily a solitary experience in an undeveloped natural setting. Motorized vehicles within the 66' riparian zone negatively affect the quality of the experience. Bank erosion, trash, cows in the stream, and poor water quality all impair the experience due to reduced fish productivity. Rural riverbank fishing is often associated with roadside areas including river boat launches.

Anglers tend to accept adjacent bank anglers since there is minimal disturbance. Urban river bank and pier fishing is impacted by lack of physical facilities such as piers, wharfs, parking areas, mowed areas, and toilets. Higher angler densities are tolerated in these park areas.

There are some impacts that this activity can cause to other activities. On occasion, anglers can disrupt deer hunting activity for early fall bowhunters who hunt public lands with a waterway. Those who fish from piers can sometimes be in the way of those trying to launch watercraft at the same piers. Anglers may also leave trash along the shore fishing areas. Some bank erosion occurs from anglers moving up and down the bank face, especially at popular fishing locations.

Participations:

Rank of participation rate: 21% of adult Wisconsin residents

Site Selection Considerations and Criteria:

- Refer to the Department Design Standards Handbook, Chapter 80 (Recreational and Boating Facilities) and 90 (Roads and Parking) for related design standards.
- NR1.91.

The information in this summary sheet was developed by DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Gathering edibles from the wild

Range of desired experiences:

Gathering fruits, nuts, berries, mushrooms and other edible items from the wild is pursued by a wide range of Wisconsinites and visitors. Enthusiasts may spend many hours collecting these items as the seasons progress, providing a significant amount of food for their family, or selling it to supplement their income. Wild rice, morel mushrooms, and wild ginseng are among the most valuable edibles sought. Frequent and occasional participants may make special excursions to collect wild edibles at the peak of their availability (e.g. maple sap, morels, blueberries), or collect edibles as random opportunities present themselves. Examples include collecting wild asparagus, water cress, blackberries, hickory nuts, etc.

Notable differences in participation or opportunities across state

Wild edibles are available in all corners of the state, from suburban woodlots and backyards in the southeast to large wilderness areas in the north.

Notable times of the year of high or low participation

Pursuit of wild edibles is closely tied to the seasons. Spring brings a flush of green edible plants such as leeks, nettles, watercress, some fungi and maple sap. Summer brings berries and fruits. Fall is prime season for most nuts, mushrooms and wild rice. Little to no participation occurs in the winter.

Potential social, economic, and ecological considerations for property planning purposes:

Impact to local populations of edible species from collecting is typically low. An exception is the illegal over-collection of wild ginseng (which requires a permit) on public lands. Trespassing onto private lands without permission is also an issue, especially by those seeking morels and ginseng. Trampling of vegetation and transporting invasive plant species propagules into natural areas is a suspected, but unproven, ecological impact. Competition among collectors, and resulting conflict, may be a consideration on small properties.

Participation:

Participation rate: 31% of adult Wisconsin residents

Site Selection Considerations and Criteria:

Site selection consideration and criteria do not apply to this activity.

The information in this summary sheet was developed by DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Geocaching

Range of desired experiences:

This activity involves placing caches—typically small waterproof boxes—on properties open to the public to test participants' geo-locating abilities. The latitude-longitude of the caches is known to participants, usually through a posting on a website. Caches are often placed in remote locations and those who located the cache record their name and date in a log book inside the cache.

Notable differences in participation or opportunities across state

Geocaching is more popular in areas of higher populations in the state. The Madison, Milwaukee and Fox Valley metro areas tend to have more participants and geocache locations.

Notable times of the year of high or low participation

There is generally higher activity in the spring and fall and little to no activity in the winter.

Potential social, economic, and ecological considerations for property planning purposes:

This activity provides excellent health benefits by encouraging participants to get outdoors pursuing a fun, challenging, and often strenuous activity. In addition, this activity has educational value in allowing participants to practice geo-locating using a variety of techniques.

Caches are only to be placed at a property with the approval of the property manager. Depending on the popularity of the cache, impacts from trampling can occur and as a result the placement of caches should avoid sensitive areas and should be done in coordination with the property manager. Caches are typically left at a location for a limited number of months or years.

This activity typically does not impact other types of outdoor recreation and does not generate many complaints from other outdoor recreation participants.

Participation:

Participation rate: 10% of adult Wisconsin residents

Site Selection Considerations and Criteria:

Site selection consideration and criteria do not apply to this activity.

The information in this summary sheet was developed with input from Wisconsin Horse Council and DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Horseback Riding and Horse Cart Driving

Range of desired experiences:

Horseback riding in Wisconsin occurs on public lands and privately-owned ranches and recreation areas. Riders need to have a basic understanding of how to handle a horse to safely participate in the recreation. Trail riding is most common. A 2007 study shows 78% of equine owners use their animals for trail riding or recreation. Trail riding trips typically involve significant effort and planning to transport horse(s) to the destination along with supplies and equipment. As a result, long distance multiday trips are typical, as opposed to single-day outings with horses. This makes access to camping areas important when planning where to go with horses. Riders typically want to be away from population centers and activity so that horses are not inadvertently startled. Truck and horse trailers need larger parking accommodations and loading areas. Drinking water, tie posts/rails and manure disposal areas are also key components to a usable equine recreation area.

Varied forested terrain is most desirable. Riders can challenge their horses and enjoy the landscape. Water features are helpful for providing water to animals without having to return to base-camp. Riding horses affords trail users a greater range of distances. To make a destination worth their trip, the desired trail lengths composed of over 15 miles of trails are best. Trails can be technical with two to four feet width of native material, but there needs to be a cleared height of about 12 feet and width of about eight feet.

Wisconsin also has an active Endurance Ride program where riders will compete over 10, 25 or 50 miles in a day.

Horse cart driving requires larger trails than traditional horseback riding, as the cart adds extra width and challenge. For those who horse cart drive competitively, a specific course is needed for practice, often created by private entities. There are also a number of recreational horse cart driving opportunities on public lands and trails scattered across Wisconsin. Since horse riding and horse cart driving are legal on public roads, town roads and forest roads are well-suited and common for horse cart driving.

Notable differences in participation or opportunities across state

Riding occurs across the state, but is more desirable in the following regions: Northwoods, Upper Lake Michigan Coastal, Mississippi River Corridor and Lake Winnebago Waters.

Notable times of the year of high or low participation

The most common times of year include spring and fall when temperatures are cooler for the horses and there is less of a problem with biting insects. There is less use during the summer when heat and insects affect the animals the most. Winter riding is not common.

Potential social, economic, and ecological considerations for property planning purposes:

Camaraderie of users is of key importance. Group rides are more common than solo riding. Riders are able to enjoy the outdoors and get to places that they may not normally access on foot. Communities that have places to ride benefit from equestrians spending on fuel, food, and shops.

Equines encounter problems when there is hiking and biking on the same trails. Bikes are fast and quiet as they travel down the trail. Hikers tend to want to stay out of the way of horses, so they move off the trail and “disappear” from the horse’s view. Both of these instances can startle horses and cause them to throw off their riders and/or collide with other trail users. Etiquette education can help multiple trail uses to co-exist.

A common complaint about equestrian trails from other users is that of manure on the trails. Sharing the trails with hikers is beneficial in that it gives hikers the opportunity to safely interact with horses that they may not otherwise have. On private lands, the expectations of equestrians are that they do not litter, they stay on trails, and stay off cropland and lawns.

With the weight of the animal and hooves, there is likelihood for disturbance to a trail's surface. If trails are not sustainably designed, this disturbance can lead to erosion and rutting in the trail. Depending on the horse's diet and where it has been recently, there is a potential for spreading invasive plant species.

Participation:

Participation rate: 7% of adult Wisconsin residents

Site Selection Considerations and Criteria:

- A minimum of three miles of trails should be provided at a property. One-half day rides should be at least seven miles in length with 10 miles the minimum length for a full day's ride. Shorter trails providing access to a point of interest are allowed.
 - Loop trails are typically eight to 10 miles long or more and are composed of a series of loops providing a variety of recreational riding experiences that return the participant to the trailhead.
 - Regional trails are point to point trails that can be several hundred miles long and traverse multiple jurisdictions and a combination of land ownership types. This trail corridor is often shared with other recreational uses.
- Varied terrain is preferable for this recreation experience but steep slopes and unstable soils can affect development costs, maintenance costs and cause unnecessary resource damage. Avoid areas with slopes exceeding 12%. Avoid areas of sandy soils or peat and organic soils that are saturated for portions of the year. Trail segments with adverse conditions should be kept to a minimum for both long term costs and for environmental reasons.
- A designated use trail is necessary for this facility type. A designated equestrian trail may be placed on lands with any DNR land classification but recreational trail setting for equestrian trails will always be Type 3 (NR44.06) or Type 4 (NR44.07) Recreational Areas. Note that this use may not be compatible with Recreation Management Areas Type 1 and Type 2.
- Refer to Chapter 30 (page 80) in the Department Design Standards Handbook (8605.1) and to the Trails Handbook (2540.5) for trail and support facility design guidance and best practices to minimize environment damage.

The information in this summary sheet was developed with input from Wisconsin Bear Hunters Association and DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs, and issues.

Summary sheet: Hunting - Big Game (Deer & Bear)

Range of desired experiences:

Deer: Hunting for white-tailed deer is one of the most popular big-game hunting opportunities in Wisconsin. Deer hunters range in their level of interest from the occasional hunter to extremely dedicated hunters that spend many hours in the field. Most Wisconsin deer hunters choose to hunt with a firearm. However, hunting with archery and crossbow equipment continues to gain in popularity. Additionally, there continues to be increasing interest in hunting from the female segment of society. Regardless of the level of interest and equipment used, most deer hunters prefer to hunt in solitude with no interruption from other outdoor recreation participants. Hunting from portable tree stands is common on public and private lands and most hunters prefer to have relatively easy access to their favorite deer hunting spots. Deer hunters are willing to travel to their hunting spot or cabin, and the atmosphere of a camp setting contributes to the overall deer hunting experience.

Bear: Bear hunters typically hunt over bait used to attract bears within harvest range, or use hounds to pursue and harvest bears. The amount and type of allowable bait for bear hunting is regulated. Like deer hunters, bear hunters prefer solitude while hunting; however, hunting with hounds can be more of a social experience involving groups of family members and friends. Access to large areas of hunting land is important for bear hunting with hounds, while hunters that hunt using only bait may use smaller tracts of land. Bears can be hunted with firearm, archery, and crossbow equipment.

Notable differences in participation or opportunities across state

Deer: Deer hunting is very popular in Wisconsin and occurs in every county in the state. Although typically an activity occurring in rural areas, there is increasing opportunity for deer hunting in urban areas to manage high deer numbers. Wisconsin has a traditional 9-day gun deer season that is extremely popular, and extended archery and crossbow harvest seasons in urban or metro deer management units.

Bear: Wisconsin continues to be a leader in providing excellent bear hunting opportunities. Most of Wisconsin's bear hunting occurs on the large tracts of public land in northern Wisconsin; however, the southern two-thirds of the state continue to support an increasing number of bears. Wisconsin uses established bear management zones and harvest permit allocation to manage hunting pressure and achieve bear population goals.

Notable times of the year of high or low participation

Deer: Avid deer hunters are planning for the hunting season all year through scouting, equipment maintenance, and habitat management. However, the majority of participation in deer hunting occurs with the onset of the archery and crossbow season in September and ends in early January. Some urban or metro deer management units provide additional archery or crossbow hunting into late January.

Bear: The bear hunting season occurs in September and October; however, people are allowed to place bait for bears beginning in mid-April. In addition, people are allowed to train their hunting hounds beginning in July.

Potential social, economic, and ecological considerations for property planning purposes:

Bear and deer hunters cite lack of access and overcrowding on public lands as problems, as well as potential for conflicts with non-consumptive users. Other users likely also see potential for conflict, especially on properties that had not traditionally been open to hunting but now are (e.g., state parks). Other concerns include: weapons discharge too close to buildings; bear dogs trespassing on private land; violation of baiting regulations; poaching; location of stands/blinds; and the cutting of shooting lanes.

On the positive side, big-game hunting gets people out into nature; promotes family bonding and camaraderie; provides meat for personal consumption and for food pantries; provides significant funding to federal and state agencies; and has a significant, well-documented positive economic impact on local and state economies. In the case of deer, populations

are managed through hunting harvest to promote tree and plant regeneration that improves ecosystem diversity. Similarly, bear populations are managed through hunting harvest to reduce damage complaints from the public and negative human/bear interactions.

Participation:

Participation rate: 13% of adult Wisconsin residents

Site Selection Considerations and Criteria:

Site selection consideration and criteria do not apply to this activity.

The information in this summary sheet was developed with input from Wisconsin Conservation Congress and DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary Sheet: Hunting - Migratory Bird

Range of desired experiences:

Migratory bird hunting includes hunting for game birds, such as dove, woodcock, snipe, sora rail and Virginia rail. Waterfowl, such as ducks and geese, are also migratory game birds, and are the predominant game bird for this activity. Hunters utilize boats and canoes, as well as hunting dogs to assist in this activity.

Notable differences in participation or opportunities across state

Wisconsin generally ranks in the top 5 for number of waterfowl hunters nationwide. Wisconsin waterfowl hunters range from those seeking the early blue-winged teal and wood duck harvest in northern marshes to the early September Canada goose hunter in the southeast and from the Mississippi River hunter seeking canvasback in November to the later season mallard and Canada goose field hunters in central Wisconsin.

Hunting success follows habitat needs for waterfowl, as well as migratory factors including weather fronts. Those engaged in this activity are open to travelling more than 1 hour.

Notable times of the year of high or low participation

This activity is limited to regulated seasons in the fall and early winter. This activity is also restricted to the type of firearm and ammunition allowed and requires permits beyond a small game license.

Potential social, economic, and ecological considerations for property planning purposes:

Migratory bird hunting provides health benefits by encouraging participants to get outdoors pursuing a fun, challenging, and sometimes strenuous activity. Migratory bird hunting is part of the Wisconsin's hunting heritage, and provides opportunities for building or continuing family traditions.

This type of activity does not require much infrastructure for upland sites, other than a potential parking area. Water sites will require a point of access or launch. Additionally, specific habitat management activities may provide a positive benefit to waterfowl abundance and provide additional hunting locations, which could increase hunter satisfaction.

Overcrowding of popular hunting locations, limited points of public access to water, and higher participation by hunters during the openings of seasons can cause impacts to the recreational experience. Some properties may also have restrictions on weapon discharge or running of dogs. There may also be potential for user conflicts between hunters and non-hunters who want to utilize the same area. Additional impacts may include potential trespass to retrieve down game and potential inadvertent spreading of aquatic invasive species.

Economic benefits include providing food for personal consumption; providing funding to federal and state agencies; and having a positive economic impact on local and state economies through draw of out-of-area hunters to locations known for high quality hunting.

Participation:

Participation rate: 5% of adult Wisconsin residents

Site Selection Considerations and Criteria:

Site selection consideration and criteria do not apply to this activity.

The information in this summary sheet was developed with input from Wisconsin Conservation Congress and DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Hunting - Small Game

Range of desired experiences:

Small game hunting includes pursuit of various game birds, mammals, and furbearers. Some hunters utilize dogs to find, track, and retrieve game animals. Hunters desire adequate habitat for the target species.

Notable differences in participation or opportunities across state

With such a diverse array of animals to hunt in this activity, hunting pressure and techniques vary region to region. Many of the species can be found in rural habitats throughout the state. However, some species have limited ranges and habitats. For example, today's pheasant population is most common in the southeast one-third of the state and in a few west central region counties. Similar limitations are true for ruffed grouse, which prefer young, early successional forests typically found in the Central and Northern Forest Regions of the state. There also appears to be a willingness to travel more than 1 hour away from participants of small game hunting for these more select types of species, particularly for pheasant, ruffed grouse, and bobcat.

Notable times of the year of high or low participation

Highest participation follows hunting seasons and is typically fall through winter. However, there are some opportunities for year-round hunting of some animals classified as “unprotected”.

Potential social, economic, and ecological considerations for property planning purposes:

Small game hunting provides excellent health benefits by encouraging participants to get outdoors pursuing a fun, challenging, and sometimes strenuous activity. Small game hunting is part of the Wisconsin's hunting heritage, and provides opportunities for building or continuing family traditions.

This type of activity does not require much infrastructure, other than a potential parking area. However, hunter walking trails or woods roads are commonly utilized for game bird hunting. Additionally, some state lands are stocked annually with pheasants.

There is higher participation by hunters during the openings of seasons, which may result in overcrowding of an area for hunters. Some properties may also have restrictions on weapon discharge or running of dogs. There may also be potential for user conflicts between hunters and non-hunters who want to utilize the same area. Additional impacts may include potential trespass to retrieve down game and discharge of lead ammunition into the environment.

Economic benefits include providing food for personal consumption and supplemental income through fur sale; providing funding to federal and state agencies; and having a positive economic impact on local and state economies through draw of out-of-area hunters to locations known for high quality hunting.

Participation:

Participation rate: 10% of adult Wisconsin residents

Site Selection Considerations and Criteria:

Site selection considerations and criteria do not apply to this activity.

The information in this summary sheet was developed with input from Wisconsin Conservation Congress and DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Hunting - Turkey

Range of desired experiences:

Turkey hunting includes both spring and fall hunting, and is limited to regulated seasons. Turkey hunters desire opportunities to call-in, ambush or stalk turkeys. Habitat is a key component that affects the quality of the hunt. Weather conditions, such as snow cover, rain and wind, can negatively affect hunting experiences.

Notable differences in participation or opportunities across state

Turkey hunting success follows the natural history and habitat needs for wild turkey in Wisconsin. This includes roosting and nesting cover, brood-rearing habitat, and dependable food sources. Though found statewide, wild turkey numbers are larger in the southern half of the state. Deep persistent snow cover and extended periods of cold temperatures have great impact on turkey populations. In Wisconsin, turkeys tend to do better where the topography is varied and mature oak/hickory woodlands are interspersed with a variety of agricultural fields.

Turkey hunting is currently divided into seven management zones within Wisconsin. These zones allow wildlife managers to set permit levels appropriate to each area based on local turkey populations, the amount of turkey habitat, and the square miles of huntable land. Participants are willing to travel more than 1 hour, partially due to the limited number of permits available in any given management zone.

Notable times of the year of high or low participation

Participation is limited to the hunting seasons in the spring and fall, with spring typically showing higher participation. Scouting for birds may occur outside of the seasons.

Potential social, economic, and ecological considerations for property planning purposes:

Turkey hunting provides excellent health benefits by encouraging participants to get outdoors pursuing a fun, challenging, and sometimes strenuous activity. Turkey hunting is part of the Wisconsin's hunting heritage, and provides opportunities for building or continuing family traditions.

This type of activity does not require much infrastructure, other than a potential parking area. However, specific habitat management activities, such as creating openings in large forest canopies, may provide a positive benefit to turkey abundance and thereby, hunter satisfaction.

Even with limited numbers of harvest tags and staggered hunting periods for spring season, there is still potential for hunter overcrowding in a specific area, particularly in quality habitat areas within less abundant turkey management zones. Some properties may also have restrictions on weapon discharge. There may also be potential for user conflicts between hunters and non-hunters who want to utilize the same area. Additional impacts may include potential trespass to retrieve down game and discharge of lead ammunition into the environment.

Economic benefits include providing food for personal consumption; providing funding to federal and state agencies; and having a significant, positive economic impact on local and state economies through draw of out-of-area hunters to locations known for high quality hunting.

Participation:

Participation rate: 6% of adult Wisconsin residents

Site Selection Considerations and Criteria:

- Turkey hunting opportunities may be increased via habitat management decisions and the creation of additional turkey hunting zones.

The information in this summary sheet was developed with input from DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Motor boating

Range of desired experiences:

A motorboat, speedboat, or powerboat is a boat which is powered by an engine. Some motorboats are fitted with inboard engines; others have an outboard motor installed on the rear. In Wisconsin, Evinrude Motors developed its first outboard motor, a one-cylinder, 1.5 hp (1.1 kW) model, which became an instant success upon its introduction in 1909. This success has translated into a very popular outdoor recreational activity across the state. In 2011, Wisconsin was named one of the top 10 boating states in the nation. The plentiful water resources have a direct influence on the state's economy, job market, history, culture and success of the Wisconsin tourism industry.

The top three cross over boater activities are fishing, swimming and entertaining.

Notable differences in participation or opportunities across state

Motor boating is available in all parts of the state.

Notable times of the year of high or low participation

Highest use months are June – August.

Potential social, economic, and ecological considerations for property planning purposes:

Wisconsin is ranked 5th in the nation for registered boats and has shown the highest boater registration growth since 1999 with currently over 625,000 registered boats. Boater's activities greatly impact the state's economy through direct spending on fuel, travel, restaurants, lodging and boating expenses which impact other business in communities such as hauling, storage, repair, equipment, insurance, marina fees and taxes.

90% of boats in the Wisconsin are small, towable boats sized at 26 feet or less. This effects department standards on proper boat access ramp and parking design. In addition, the department is regulated by NR.9.1 on the number of vehicle / trailer parking spots available by the size of the waterbody. There are also a number of state and local laws on the operation and use of motorboats.

Participation:

Participation rate: 45% of adult Wisconsin residents

Site Selection Considerations and Criteria:

- Refer to the Department Design Standards Handbook, Chapter 80 (Recreational and Boating Facilities) and 90 (Roads and Parking) for related design standards.
- NR1.91.

The information in this summary sheet was developed by DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs, and issues.

Summary sheet: Nature-Based Education Programs

Range of desired experiences

An incredibly diverse range of visitors engage in nature based education programs, ranging from hikers and bikers to hunter and anglers. Many different types of programs exist that discuss subjects such as bird migration, wild food, and property history. These programs may be geared towards a particular visitor demographic, or act as an opportunity to introduce visitors towards a new activity. Programs run all year, during all times of day.

Notable differences in participation or opportunities across state

The types of programs that are held vary depending on the natural features and amenities that a property may offer. Properties with amphitheaters may be able to host performances and other demonstrations, whereas remote properties with little light pollution may be able to offer astronomy and stargazing programs. Northern areas of the state may offer more programs geared towards winter-related recreation than southern areas, due to the cold climate of the area.

Notable times of the year of high or low participation

While nature-based education programs may be held throughout the year, the types of programs offered vary depending upon the season. Many wildflower and bird migration walks are held during the springtime. Summertime welcomes an incredible range of programs that include wildflower and bird walks alongside cooking, natural art, history, and other demonstrations. Autumn shifts towards hikes that explore the fall colors and bird migrations. In the wintertime, candlelit cross-country ski adventures and winter wildlife talks are common.

Potential social, economic, and ecological considerations for property planning purposes:

Nature based education programs have very little interference with other types of recreation. These programs share information about the outdoors with visitors, empowering them with new recreational skills as well as knowledge of their natural surroundings. These programs often unite visitor groups with common interests, building stronger visitor and recreational communities. These programs may attract visitors seeking community or to learn new skills, thereby increasing visitation to a particular area. This increase may in turn bolster the local economy.

Participation:

Participation rate: 52% of adult Wisconsin residents

Site Selection Considerations and Criteria:

Site selection consideration and criteria do not apply to this activity.

The information in this summary sheet was developed by DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Nature photography

Range of desired experiences:

Participation in photography, both still and video, runs the gamut of experience from professional photographers and cinematographers using expensive, state-of-the-art cameras to those capturing a snapshot with a smartphone or point-and-shoot camera. “Nature” photography covers an extremely broad realm, including images of wild plants and animals, landscapes, and natural phenomena – almost any subject that has a decidedly natural focus. Nature photography can happen on any type of property and in any sort of habitat, size and configuration of the property is not important as long as access is available and there is something of interest to take a photo of. The experience is enhanced if the photographer has a chance to capture unusual flora or fauna or a landscape.

Notable differences in participation or opportunities across state

Nature photography is pursued throughout the state, from the back yard to large public lands.

Notable times of the year of high or low participation

Nature photography is done year around, but participation is likely highest from spring through autumn.

Potential social, economic, and ecological considerations for property planning purposes:

Social benefits of nature photography include physical and mental health of participants who explore the outdoor world. Economic impacts are unknown, and there are few identified impacts to the ecological values of DNR lands. One known concern is the trampling to vegetation caused by photographers eager to capture a picture of an uncommon subject, such as a rare orchid. There are no known conflicts with other outdoor recreational pursuits.

Participation:

Participation rate: 37% of adult Wisconsin residents

Site Selection Considerations and Criteria:

Site selection consideration and criteria do not apply to this activity.

The information in this summary sheet was developed with input from Off Highway Vehicle Council and DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

There are generally two types of off highway motorcycles. The first type is street legal and licensed but designed for a mix of street riding and off-street riding (e.g. dual sport motorcycles). This type is allowed on any open designated public road. The second type is not licensed and is designed specifically for off-pavement riding. A new registration program is in place similar to ATV/UTV to allow registered off highway motorcycles on certain classifications of roads. Some public lands have specific trails designated for off highway motorcycles (OHM).

Summary sheet: Off Highway Motorcycle

Range of desired experiences:

Off highway motorcycling occurs in small areas, for a quick close-to-home experience, or large expansive areas with significant miles of trails for single or multi-day riding opportunities. Generally, users prefer native-material roads and trails less than four feet in width. The trail or road bed has a significant influence on experience and, if poorly designed, can create a negative experience. Participants that travel to a destination for off highway riding seem to prefer a minimum of 75 miles of roads and trails. Long linear roads and trails are desirable to access scenic areas and other natural features away from heavily developed areas and are viewed as a way to get outdoors. There is a slightly higher desire for hilly terrain and scenic rides with views of forests, open natural areas, lakes and streams. Riding long linear rail trails are generally viewed as non-challenging and a means to connect between trail systems and services. Highly disturbed areas can provide challenging riding within a small area.

Notable differences in participation or opportunities across state

Most of the longer riding opportunities are on public lands with the vast majority in the northern half of the state. There are thousands of miles of primitive roads in northern Wisconsin on state, county and federal lands that allow street licensed vehicles. There is a cluster of designated motorcycle trails in Jackson and Clark counties. The Richard Bong State Recreation Area is an example of the smaller-scale, shorter trail opportunities clustered in southeast Wisconsin. There are many state trails on old railroad beds that are mixed-use, but that availability varies across the state and depends on allowed uses. Many of these trails provide connections to other trail and road networks.

Notable times of the year of high or low participation

Use is very seasonal in nature occurring mostly between late spring and fall. Many roads and trails are closed in the spring due to seasonal thawing and there is no winter use. Late summer and fall can be a very enjoyable recreation and tourism period with fall colors and cooler temperatures.

Potential social, economic, and ecological considerations for property planning purposes:

Off highway motorcycles are not significantly impacted by people in other activities. At times, roads allow multiple uses including vehicles, horses and street legal motorcycles in which some congestion may occur but it is minimal. There are some challenges with mixing motorcycle and ATV use on designated ATV trails as they are designed for a certain type of vehicle. There may be conflict in passing width for trails, whether one-way or two-way. Consideration should be made in the design of trails and the mixed speeds that people may be recreating (for instance bikes and motorcycles sharing a trail). From a planning perspective consideration needs to be given to regional trail systems and town road designations as connecting systems for access and services. Trail and road systems should be considered to address user's needs and experiences including remote riding opportunities on closed loop systems and larger more regional road and trail systems.

Discussion on the issues and outcomes that can potentially result from people participating in the activity. These can include both positive and negative impacts to:

- Dust, noise, spread of invasive
- Family activity. Getting outside and enjoying nature and public lands
- Local and statewide economy for recreation/tourism services, hotel, food, gas, etc.

- Conflict with users desiring experiences of non-motorized uses (e.g. hiking, biking, rustic camping, hiking)

Participation:

Participation rate: 7% of adult Wisconsin residents

Site Selection Considerations and Criteria:

- A minimum of 60 miles of trails should be provided at a property with 15 or more miles of connector routes or trails. Shorter trails providing access to a point of interest are allowed.
 - Loop trails are typically 10 miles long or more. An OHM area usually provides a series of loop trails providing a variety of recreational riding experiences that return the participant to the trailhead.
 - Regional trails are point to point trails that can be several hundred miles long and traverse multiple jurisdictions and a combination of land ownership types. This trail corridor is often shared with other recreational uses.
- Varied terrain is preferable for this recreation experience but steep slopes and unstable soils can affect development costs, maintenance costs and cause unnecessary resource damage. Avoid areas with slopes exceeding 12%. Avoid areas of sandy soils or peat and organic soils that are saturated for portions of the year. Trail segments with adverse conditions should be kept to a minimum for both long term costs and for environmental reasons.
- A designated use trail is necessary for this facility type. A designated OHM trail may be placed on lands with any DNR land classification but recreational trail setting for ATV trails will always be Type 3 (NR44.06) or Type 4 (NR44.07) Recreational Areas. Note that this use may not occur on land with the classification of Type 3 Non-Motorized Recreation Area (NR44.06(6)(h)) and is not compatible with Recreation Management Areas Type 1 and Type 2.

The information in this summary sheet was developed by DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs, and issues.

Summary sheet: Picnicking

Range of desired experiences:

Picnicking is a popular way to share a meal, make memories, and appreciate the outdoor space that Wisconsin has to offer. It may be done by a variety of visitors including day use visitors, campers, bikers, hikers, motorized trail recreators, and more. The picnic experience may range from an all-day grilling event with brats and veggies to a quick pit stop for hungry hikers.

Notable differences in participation or opportunities across state

Many properties offer picnic areas with a range of amenities. These include more developed areas with shelters, grills, playgrounds, and volleyball courts as well as less developed areas with a picnic table with water and a toilet.

Notable times of the year of high or low participation

Picnicking is especially popular during the warmth of the spring and summer months, as well as during the beautiful colors of autumn. Fewer visitors participate in picnicking in the winter due to the cold temperatures.

Potential social, economic, and ecological considerations for property planning purposes:

Economic impacts of picnicking are great, as they provide a way for visitors to engage with the property without equipment. This broadens the range of visitors and thus the potential to bring revenue into the local economy.

Picnicking provides a time to recharge for visitors that may include hikers, bikers, and paddlers. In doing so, it facilitates an improved recreation experience for these groups. It also facilitates community bonding by bringing together different groups of people to spend time together.

The ecological impact of picnicking is minimal, although food crumbs may attract unwanted visitors to a picnic area. Trash and litter left behind by picnickers may also be unsightly and cause disturbance in the natural environment.

Participation:

Participation rate: 74% of adult Wisconsin residents

Site Selection Considerations and Criteria:

- Picnic areas should be located near other points of interest and have a mixture of open and shaded areas. Picnic tables and grills should be provided. Parking should be located within 150 feet, except for overlooks, water features and other special situations. Topography should be level to gently sloping, well drained and should not exceed 10% grade.
- Section NR 45.03(17) defines a picnic area as any tract of land developed and maintained for picnicking and containing not less than five picnic tables. Included in the definition of picnic area are adjacent playground and play field areas. The maximum density for picnicking should not exceed 60 people per acre.
- Standard size picnic area tables are 8 feet long. This size table provides comfortable seating for up to six people plus space for a cooler, large thermos jugs, etc.
- For department properties, pets are not allowed in a designated picnic area. Exceptions may be made for visitors with Service Dogs. Other exceptions are made in certain circumstances considering health and safety.
- Distance from drinking water to a picnic table should not exceed 400 feet. Wells with hand pumps may be used in picnic areas with a density is low. Pressurized systems should be considered in areas where the density exceeds 50 persons per acre. Areas with pressurized systems and a high degree of, or potential for, non-summer use should maintain at least one well with a hand pump. Water supply and toilets should be grouped in service centers, when feasible, yet water supply should still be separated by at least 50 feet from the toilets.

- Shelters are recommended in picnic areas with a use density of more than 36 persons per acre and which have a capacity of at least 180 persons. Design, size and number of shelters depend on local needs.
- Distance from the restroom to perimeter of picnic area should not exceed 600 feet and be within line of sight. Picnic areas with densities of over 51 persons per acre and a capacity of 200 persons should have flush toilet facilities. Vault-type toilets will be used where flush-type toilets are not available and/or where picnic area densities are under 51 persons per acre. If heavy non-summer season use is expected, a winterized flush toilet facility may be desirable.

The information in this summary sheet was developed by DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Rock climbing

Range of desired experiences:

Rock climbing is an activity in which participants climb up, down or across natural rock formations or artificial rock walls. The goal is to reach the summit of a formation or the endpoint of a usually pre-defined route without falling.

Rock climbing is a physically and mentally demanding sport, one that often tests a climber's strength, endurance, agility and balance along with mental control. It can be a dangerous activity and knowledge of proper climbing techniques and usage of specialized climbing equipment is crucial for the safe completion of routes. Because of the wide range and variety of rock formations, rock climbing has been separated into several different styles and sub-disciplines.

Notable differences in participation or opportunities across state

Rock climbing is available in all parts of the state, but the primary opportunities occur in the southern half of the state.

Notable times of the year of high or low participation

Highest use months are April through October.

Potential social, economic, and ecological considerations for property planning purposes:

Rock climbing is an established, traditional recreational activity that may occur on department-owned lands and is consistent with the department's mission to provide outdoor recreational opportunities to the public.

Rock climbing is allowed on department-controlled lands on natural rock faces in non-designated use areas unless posted as closed. Some rock climbing within non-designated use areas may be restricted due to impacts on natural resources or user conflict. Climbing on buildings, towers, boardwalks or other department-managed structures or using such structures as anchors (i.e. fences, railings, and pilings) is prohibited.

The department has developed guidance entitled "Rock Climbing Policy for DNR-Managed Properties" (February 2000).

Participation:

Participation rate: SCORP data is not available for this activity

Site Selection Considerations and Criteria:

Site selection considerations and criteria do not apply to this activity.

The information in this summary sheet was developed by DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs, and issues.

Summary sheet: Sailing, windsurfing, rowing, stand-up paddling

Range of desired experiences:

Sailing experiences range from day sailing across a bay to cruises and charter vacations. Smaller boats, such as simply dinghy and sloops, have traditionally been used for beginning sailors. Experienced sailors transition to larger boats and may compete in competitive racing. Sailboats range in size, hull configuration, keel type, number of sails, use, and purposes.

Windsurfing, rowing and stand-up paddling are all daytime activities. While windsurfing requires a larger water body and wind, rowing and stand-up paddling are best suited for smaller bodies of open water protected from the wind.

Public access standards are described in NR 1.91; It is the goal of the state of Wisconsin to provide, maintain and improve access to the state's navigable lakes, rivers and streams for the public. Public access facilities shall allow for public rights of navigation, related incidental uses and other uses which are appropriate for the waterway. Waterway uses shall be equally available to all waterway users and include enjoyment of natural scenic beauty and serenity. These public rights and uses may be provided by any combination of publicly and privately-owned access facilities which are available to the general public free or for a reasonable fee.

Notable differences in participation or opportunities across state

Opportunities are available across the state, with areas such as Lake Superior and Lake Michigan especially lauded for their sailing potential. Wind resources on the larger bodies of water are well suited for windsurfing and sailing. These opportunities are also available on river, such as the Mississippi River. Smaller lakes throughout the north and larger rivers and flowages in the central and southern part of the state are well-suited for rowing and stand-up paddling.

Notable times of the year of high or low participation

Summertime, accompanied by warmer temperatures, is especially popular for these activities. Spring and fall may yield adequate sailing temperature, but as winter settles in, the opportunity to sail diminishes.

Potential social, economic, and ecological considerations for property planning purposes:

Sailing, windsurfing, rowing, stand-up paddling has a number of both positive and negative effects. It provides visitors a means by which to escape onto and explore the water, whether it is with friends or family or on a solitary soul-searching journey. It also allows for community-building of groups of like-minded individuals.

However, due to the frequency of visitation and traveling of visitors, there is an increased likelihood of the introduction of aquatic invasive species and potential for trash left at public launches. Additionally, erosion at boat launches may begin to deteriorate the natural environment.

Participation:

Sailing participation rate: 7% of adult Wisconsin residents

Stand-up paddle boarding participation rate: 11% of adult Wisconsin residents

Windsurfing and rowing participation rate: SCORP data is not available for these activities

Site Selection Considerations and Criteria:

- Refer to the Department Design Standards Handbook, Chapter 80 (Recreational and Boating Facilities) and 90 (Roads and Parking) for related design standards.
- NR1.91.

The information in this summary sheet was developed by DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs, and issues.

Summary sheet: Scuba Diving

Range of desired experiences:

Scuba diving opens up a world of exploration of natural and cultural features from shipwrecks to historic docks and underwater artifacts. Areas ranging from the Great Lakes to lakes within county parks are suitable for scuba diving, each with a unique environment to unveil beneath the surface. Scuba diving is also used for spear fishing.

Both shore diving and boat diving are available, differing largely by method of entry. Shore diving also requires more planning than boat diving in order to find the best entry points and be mindful of the equipment carried across land before entry. Night diving and ice diving are also options for the particularly adventurous diver.

Notable differences in participation or opportunities across state

Areas for participation range from Lake Michigan and Lake Superior to Devil's Lake and various county lakes. Lakes with clear water are preferred. Since there are few lakes in the western and central part of the state, there are far less opportunities for scuba diving.

Notable times of the year of high or low participation

Warmer weather yields more mild waters suitable for scuba diving. Subsequently, summer is the most popular season for scuba diving. Although ice diving opportunities do exist, colder waters require more extensive equipment and preparation before entering the water, and do not harbor welcoming water conditions.

Potential social, economic, and ecological considerations for property planning purposes:

Scuba diving is not compatible with many fishing activities, as their presence may deter and alarm fish that are in the area. Furthermore, divers may run into conflict with motorboats and sailors, as these motors may injure a diver. Scuba diving may also result in the damage of natural and cultural features that are often hidden and undisturbed under the surface.

At the same time, scuba diving allows for the understanding of the world from a new perspective. It enables new discoveries and sheds light on the past by uncovering historical artifacts.

Participations:

Participation rate: SCORP data is not available for this activity

Site Selection Considerations and Criteria:

- Refer to the Department Design Standards Handbook, Chapter 80 (Recreational and Boating Facilities) and 90 (Roads and Parking) for related design standards.
- NR1.91.

The information in this summary sheet was developed with input from the Association of Wisconsin Snowmobile Clubs and DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Snowmobiling

Range of desired experiences:

Riding snowmobiles occurs on over 22,000 miles of interconnected groomed trails across the state. The trails are open to the public and located on both private and public property with most trails maintained and groomed by volunteer members of over the 600 snowmobile clubs in the state. Public properties with trails include county forests, national forests and various state properties. Participants range from casual to highly dedicated, but participation is entirely dependent on weather. Some participants will ride a short distance to a destination (e.g. a local supper club), others prefer long-distance riding, covering hundreds of miles in a day. Long-distance riders will both “base camp” (stay in one location and ride back to that location each night) and move from one place of lodging to the next for multiple nights.

Notable differences in participation or opportunities across state

Participation is weather-dependent; however, participants often travel (trailer machines) to better snow conditions and more extensive trail systems, particularly to northern Wisconsin. There are approximately 200,000 registered snowmobiles in Wisconsin.

Notable times of the year of high or low participation

This activity is entirely dependent on weather and snowfall. Participation on DNR lands takes place in winter only, however there are some unique snowmobile events that take place in non-winter seasons.

Potential social, economic, and ecological considerations for property planning purposes:

Snowmobilers affect the local economy with purchase of fuel, food, lodging, rentals, and equipment. Most common issues cited by adjacent landowners and other users of public lands are the speed and noise of the machines, and exhaust fumes. Machines with studded tracks can cause damage to wood or asphalt. Snowmobile stud use should be considered for any such surfaces (epoxy treatments, protective coverings etc.).

This is an outdoor activity that allows participation regardless of physical ability.

DNR properties could be considered for two types of experiences: to facilitate connections between systems, and to provide a destination-type experience. Interconnection with existing trails and routes is the greatest key. No real user preference for topography, habitats, or general location. Trail needs to be 12' wide at a minimum with bridges engineered to support grooming equipment, which can weigh 25,000 pounds.

Funding from machine registration, fuel tax and snowmobile trail passes is available for maintenance on state funded trails. Construction and maintenance can be performed by local snowmobile clubs.

Participation:

Participation rate: 15% of adult Wisconsin residents

Site Selection Considerations and Criteria:

- Rolling terrain is acceptable but grades and slopes should not exceed 25%.
- Trails will not be routed over bodies of water, nor will they be routed through or by areas of anticipated conflict that may include, but are not limited to, wilderness areas, game preserves, winter browse areas, experimental stations, nurseries, plantations, eagle or osprey nesting sites, known wolf habitat, residences and other area considered sensitive by the department.
- NR44 addresses appropriate designated trail types for the various land classifications.
- Refer to the Department Design Standards Handbook (8605.1, Chapter 30(Trails) and Chapter 90 (Parking) and the Trails Handbook (2540.5) for further design guidelines.

The information in this summary sheet was developed by DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Snowshoeing

Range of desired experiences:

This activity involves using snowshoes--a device to facilitate walking on top of the snow without breaking through or sinking in the snow, typically an oval or racket-shaped frame with a network of straps stretched across and attached to a boot. This winter activity requires measurable snow; use is generally on hiking trails or open areas without dense woody vegetation.

Trails in forested areas make the activity more enjoyable, trails in open spaces aren't necessary.

Notable differences in participation or opportunities across state

Snowshoe participation occurs across the state in the winter.

Notable times of the year of high or low participation

Winter is typically the only time of year for this use.

Potential social, economic, and ecological considerations for property planning purposes:

This activity allows outdoor recreationists to traverse deep snow without sinking in. There are health and wellness benefits associated with exercise. It also enables those recreating or working in the outdoors to access areas without maintained or packed trails. There are generally no negative effects from snowshoeing. The only consideration of note is that groomed ski trails are disrupted by snowshoe imprints.

Participation:

Participation rate: 13% of adult Wisconsin residents

Site Selection Considerations and Criteria:

- As this activity can take place on any hiking trail the selection consideration and criteria is similar to that of hiking.
- NR44 addresses appropriate designated trail types for the various land classifications.
- Refer to the Trails Handbook (2540.5) for further general trail design guidelines.

The information in this summary sheet was developed by DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Swimming in lakes and rivers and visiting a beach

Range of desired experiences:

This activity involves entering water bodies and water ways simply for swimming, wading or otherwise interacting with the water and nature. There is a strong relationship between picnicking, sunbathing, people watching and swimming.

Visiting a beach may include swimming in lakes and river, but also encompasses those who use a beach for walking and other water sports.

Notable differences in participation or opportunities across state

This activity occurs in water bodies across the state, typically at parks with beach access to the water. Higher participation occurs in more populated areas at urban parks and in northern vacation areas.

Notable times of the year of high or low participation

This activity only occurs in the summer when water temperatures are favorable.

Potential social, economic, and ecological considerations for property planning purposes:

Swimming in natural water bodies can provide cooling on hot summer days, as well as an introduction to water-based recreation, interaction with aquatic plants and animals.

Poor water quality, sharp rocky substrate, silty/mucky substrate, cold water temps, dense aquatic vegetation may deter swimming. Swimmers can disrupt fishing activities or become an obstacle to boaters and small water craft users. Creating a beach area for swimmer access can eliminate shore habitat for aquatic species.

Participation:

Swimming participation rate: 54% of adult Wisconsin residents

Visiting a beach participation rate: 65% of adult Wisconsin residents

Site Selection Considerations and Criteria:

- Lakes and rivers with good swimming potential have a uniform slope (between a ratio of 1:3 and 1:10) to a water depth of five feet with a sandy bottom. The beach area should be as big as the swim area or preferably bigger. A grass area with partial shade is best located in close proximity to the beach.
- See the Department Design Standards Handbook (8605.1) Chapter 20 for additional design guidelines.

The information in this summary sheet was developed by DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Target Shooting – Archery

Range of desired experiences:

This activity involves the shooting at various types of targets with a bow and arrow. Targets are generally arranged along a course or range. Outdoor archery ranges vary in whether they have 3D targets, or two-dimensional paper animal targets that are either mounted directly to an arrow-catching device (bail of compressed material) or mounted to horizontal wires set in front of a sand berm. Most walk-through ranges offer a variety of distances and often provide distances from 10 to 60 yards. Usually the farther distances have a larger animal. In some cases, however, even spot-style targets are used in outdoor ranges. Preferred settings are in savanna, forest, or river/stream habitats with moderate topographical relief (mostly hilly or some hills and some flat). A high-quality opportunity would include: at least 80 acres of habitat away from populated areas with ~1 mile of trail (>4'-wide, 4-8' cleared corridor, native surface); a mowed grassy area; shooting platforms, target bunkers, an assembly building, and a secure storage facility to hold targets, materials, tools, and a UTV with trailer.

Notable differences in participation or opportunities across state

Participation is similar across the state. Serious archers will travel great distances to participate at sanctioned shoots. Most larger shoots are 3D competitions, however there are some popular long-distance spot shoots.

Notable times of the year of high or low participation

Participation is highest in summer and low the rest of the year.

Potential social, economic, and ecological considerations for property planning purposes:

Participants' main complaint is regarding poorly maintained trails and targets. Signage is important as well. Stations/targets should be numbered. Shooting lanes need to be maintained well to make shots possible, yet challenging. Target locations, or distances should change to offer a new experience or challenge at each visit. Most ranges need return customers to be viable. Archery is a quiet sport. Safety is the main concern. Trail layout must incorporate a design that makes it safe for all users. Therefore, areas beyond the target have to be closed to use. Arrows that deflect from a branch or trunk can travel quite a distance.

Trails have to be well maintained and sustainable, able to withstand UTV traffic for maintaining the range. 3D targets can be quite large and heavy, so most clubs use UTVs to put out and take down targets. Trails should be mowed regularly. Grass should not exceed 6" tall.

3D targets are commonly destroyed by bears if left out overnight, so targets need to be stored nightly. Archery is a sport that can be enjoyed by people of all ages, so multiple generations can enjoy this activity together.

Participation:

Participation rate: 19% of adult Wisconsin residents

Site Selection Considerations and Criteria:

- General Location: Ranges may be built on department lands where the range is compatible with the surrounding land use. Ranges can also be built on county, federal, or local government lands. Some considerations to take into account:
 - Look for a minimum of an eighty-acre site that can accommodate a minimum one-mile shooting trail
 - Avoid wetlands or hydric soils, State Natural Areas and archeological sites
 - Direct road access is preferred
 - Minimize impact on other recreational users
 - Minimize impact on blocks of wildlife habitat
 - Look for rolling topography that is supportive of developing a shooting range

The information in this summary sheet was developed with input from Wisconsin FORCE/NRA and DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Target Shooting – Firearms

Range of desired experiences:

This activity involves various forms of target shooting with shotguns, including sporting clays, 5-stand clays, skeet, and trap shooting. Sporting clays are generally arranged along a course and 5-stand, skeet, and trap are shot on fields. Preferred settings are in grassland, savanna, or forest habitats with varied topography (some hills and some flat). A high-quality opportunity would include a developed area with walkways, mowed grassy area and a clubhouse area with supplies and services. Additional amenities include electricity and a lighted course; target stands, shooting stands, trap houses and skeet houses. There is some willingness to travel.

Notable differences in participation or opportunities across state

This activity occurs across the state, but demand is strongest and supply most limiting in more populated urban-suburban areas of the state, particularly in southeast Wisconsin.

Notable times of the year of high or low participation

Participation is highest in summer and fall, and less active in the spring.

Potential social, economic, and ecological considerations for property planning purposes:

Crowding can affect the shooting experience. Noise is the primary complaint from other property users or neighboring landowners. Safety is also an expressed concern, but can be very effectively managed. Some damage to trees and other vegetation from shooting. Lead deposition in the soil has been identified as a concern; however, contamination of soil and groundwater is relatively uncommon and can be prevented. Lead recycling is a widely used practice at these facilities and can be a financial benefit.

Benefits include proficiency in handling a shotgun and performing in competition. Providing these facilities on department properties has increased the availability of well-managed sites to shoot on. However, fully developed, high quality experiences are provided by clubs and organizations around the state, and it is a primary source of income for them. There is demand for additional public trap and skeet shooting opportunities in southeast Wisconsin.

Participation:

Participation rate: 29% of adult Wisconsin residents

Site Selection Considerations and Criteria:

- The considerations below are from the Shooting Range Guidance for Range Development Considerations on Department Lands, presented at the May 2014 NRB meeting. See the green sheet for additional considerations regarding the siting and design of shooting ranges.

General Location: Ranges may be built on department lands where the range is compatible with the surrounding land use. Ranges can also be built on county, federal, or local government lands. Some considerations to take into account:

- Be aware of the issue of noise disturbance to residences within 1,000 yards
- Look for a minimum of four-acre site and avoid wetlands or hydric soils or soils with hydric inclusions
- Avoid State Natural Areas and archeological sites
- Direct road access is preferred
- Minimize impact on other recreational users
- Minimize impact on blocks of wildlife habitat
- Look for topography that is supportive of developing a shooting range

The information in this summary sheet was developed with input from Wisconsin Trappers Association and DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs and issues.

Summary sheet: Trapping

Range of desired experiences:

This activity involves regulated harvest of animals using various types of traps. This activity typically occurs on lands open to trapping, depending upon if the target species is present. Most traps need to be checked daily, with some sets designed to kill animals (in the water or in enclosed boxes) having a 4-day check law. Access is important, by boat or vehicles, to areas not commonly used by other user groups during the winter months. Trappers also look for areas having concentrations of furbearing animals. There is some willingness to travel for this activity, however with regular checking of traps required, distance can be limited.

Notable differences in participation or opportunities across state

Trapping occurs across the state. Participants use a range of different habitats and prefer locations away from population centers.

Notable times of the year of high or low participation

Participation is highest in fall and winter, moderate in spring, and low in summer.

Potential social, economic, and ecological considerations for property planning purposes:

High use of an area by other user groups and domestic pets would negatively impact trapper use of an area. Impact to other users generally is low, but incidental trapping of domestic pets is possible. Environmental impacts include reduction in populations of furbearers. Removing beaver may result in altered hydrology.

Trapping gets people out into nature; provides supplemental income through fur sales; provides a way to remove or reduce numbers of nuisance wildlife; and generates funding for federal and state wildlife management agencies. Removing a harvestable surplus of furbearing animals can also help control disease by reducing concentrations of animals that carry wildlife and zoonotic diseases, reduce predation on desirable nesting/denning wildlife species by reducing predator numbers, and help maintain cold-water streams by removing beaver. Trapping can also benefit deer and small game by harvesting animals that are competing with these species for food.

Participation:

Participation rate: 4% of adult Wisconsin residents

Site Selection Considerations and Criteria:

Site considerations and criteria do not apply to this activity.

The information in this summary sheet was developed by DNR staff. These summaries will evolve as the department continues to work with the public in identifying outdoor recreation opportunities, needs, and issues.

Summary sheet: Whitewater Rafting

Range of desired experiences:

There are six grades of difficulty within whitewater rafting, ranging from small rough areas to stretches of river with considerable drops, hazard, waves, and whitewater. Canoes, rafts, kayaks, and other crafts may be used for whitewater rafting. Rafters vary in experience from those with basic paddling skills to others with full mastery of the tricks and maneuvering in whitewater rafting.

Public access standards are described in NR 1.91; It is the goal of the state of Wisconsin to provide, maintain and improve access to the state's navigable lakes, rivers and streams for the public. Public access facilities shall allow for public rights of navigation, related incidental uses and other uses which are appropriate for the waterway. Waterway uses shall be equally available to all waterway users and include enjoyment of natural scenic beauty and serenity. These public rights and uses may be provided by any combination of publicly and privately-owned access facilities which are available to the general public free or for a reasonable fee.

Notable differences in participation or opportunities across state

Whitewater rafting is most popular in the upper Lake Michigan area, followed by the Northwest portion of the state. The geology of the area is pierced by the Douglas Fault, resulting in a rocky landscape connected with tumbling rivers and rapids. The Upper Wolf River is a particularly popular whitewater rafting resource.

The western Driftless Area is dominated by small streams that empty into larger rivers. Moving northwards, larger rivers become popular. Both these small streams and larger rivers are suitable whitewater rafting destinations.

Notable times of the year of high or low participation

Summertime, accompanied by warmer temperatures, is especially popular for whitewater rafting. Springtime is also popular as the snow melts and river water levels rise. Fall and winter are not common whitewater rafting seasons, due to the cold and reduced river flow.

Potential social, economic, and ecological considerations for property planning purposes:

Whitewater rafting builds community among water enthusiasts, and provides an outlet for exercise. It also connects people to the water, thereby strengthening motivation for environmental stewardship.

At the same time, whitewater rafting may run into conflict with activities such as stream or river fishing, since these folks often seek peace and quiet without rambunctious rafters heading down the channel. Rafting activity may also disturb the extant fish communities.

Whitewater rafting may also encourage dredging, blasting, and altering the riverbed in order to remove safety hazards and make more exciting whitewater features. Boat launches may also suffer erosion due to heavy visitor traffic.

Participation:

Participation rate: SCORP data is not available for this activity

Site Selection Considerations and Criteria:

- Refer to the Department Design Standards Handbook, Chapter 80 (Recreational and Boating Facilities) and 90 (Roads and Parking) for related design standards.
- NR1.91.

